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ABSTRACT

Two theoretical frameworks, which underlie education programs for young Limited-English-Proficient (LEP) children, are explored: cognitive/developmental and maturational/linguistic theories. The cognitive/developmental view supports the idea that intellectual and language growth and learning are action oriented and variable among young children and are affected by factors such as direct experiences with the physical and social worlds. The maturational/linguistic view stresses development and learning as a series of overlapping, predetermined, and continually emerging traits. A third view is recommended that is an offshoot of the maturational/linguistic view: the sociolinguistic perspective, which recognizes the significant affect that the sociocultural milieu has on children's language and intellectual traits. Several cognitive developmental implications for young LEP children are discussed, including practical applications to the early childhood classroom and home environments. Discovery learning (free, prompted, and directed) and the selection of materials for language and intellectual development are also suggested. Implications for further research are noted. Contains 62 references. (LB)

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EARLY CHILDHOOD: THEORIES, RESEARCH AND IMPLICATIONS FOR BILINGUAL EDUCATION

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INTRODUCTION

Early childhood education is a developing field of study in the United States. Although there is some debate about the range of children's ages that encompass this field (Cartright and Peters, 1982), current teacher educators and researchers regard birth to eight years of age as early childhood (Peters, Neisworth and Yawkey, 1985). From programmatic, human service and developmental perspectives, early childhood typically contains several smaller age-related areas of infancy (birth to two years), preschool (two to four years), kindergarten (five years) and primary grades (six to eight years). In states such as California, New York, Pennsylvania and many others, early childhood teacher certification is increasingly viewed as professional certification of individuals deserving to work in nursery through third grade school programs with children from two to eight years of age. Accordingly, this paper provides an overview of the major mainline early childhood theories and research studies that underlie this field of study. It relates these theories and studies to young limited English proficient children. In addition, it suggests implications of these theories and research studies for practitioners and school administrators. The paper concludes with issues and recommendations for further research.

EARLY CHILDHOOD THEORIES AND RESEARCH STUDIES

Peters, et al. (1985) and Nurss and Hodges (1982) describe historically several forms of early childhood education in the United States that mutually coexist and intersect: kindergarten, nursery school, day care and compensatory education. Each form has different goals for the young child. The major goal of kindergarten is to prepare the young child for formal schooling in first grade. It is generally regarded by many early childhood educators as a bridge between home and school and, therefore, stresses socialization or social adjustment (Nurss and Hodges), fine and large motor development and other areas such as positive attitudes toward self, school and society.

In general, nursery school goals also stress socialization and positive self concept. Lay and Dopyera (1977), in Nurss and Hodges, note that nursery

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schools as half-day programs for young children two to five serve families primarily from middle to upper socioeconomic levels. Play and its various forms, in inside and outside environments, help to crystallize positive socialization and self concepts in young children. Day care, as the third form of early childhood education, varies widely from state to state. Serving a variety of age levels, from infancy to age five, in full-day programs, day care can be center- or home- based as well as private, proprietary, public or operated by business or industry exclusively for their employees. The goals of day care also vary from "custodial care to developmental and/or educational growth and stress a mix of developmentally and educationally appropriate activities" (Nurss and Hodges, p. 505).

With massive federal funding of Project Head Start in 1965, compensatory education began for children from low economic strata. Although the goals of Project Head Start are indeed comprehensive and cover numerous areas such as nutrition, health, and social, emotional, physical and intellectual and family development, Head Start is regarded by most early childhood theorists as the beginning of the early childhood field. There are several reasons for this recognition:

1. Peters, et al. (1985, p. 27) note that Project Head Start was the legitimate offspring of and brought together the various early childhood forms of kindergarten, nursery schools and day care. In addition, Head Start represented a new, first attempt on a large federally legislated and funded scale for "systematic intervention into the lives of young children and families with the explicit intention of accomplishing large social goals." (Peters, et al. p. 27).

2. Founded on social unrest of the 1950s and 1960s and child development research results that showed cumulative cognitive and stimulation deficits favoring middle over low SES children, Head Start ushered in great regard for theory and research driven early childhood programs and leashed theory and research to serve the young child (Cartright and Peters, Nurss and Hodges).

3. Although the initial Head Start assumption of cumulative deficits is highly questionable in present early childhood education, Head Start served "to emphasize intellectual and language development and deemphasize social adjustment as goals as well as to stress the plasticity and malleability of development and learning in young children" (Nurss and Hodges, 1982, p. 498).

4. Head Start for early childhood education legitimate unique, significant contributions that parents make to their young children's development and learning and the significance of parent involvement and education for school programs.

With the recent establishment of this field of the young child from the foundations of Head Start and child developmental and psychological studies, early childhood education since 1965 is greatly influenced by theories and research. Such theory and research serve as bases for young children's development, learning and programming as well as policy making.

World Views of Early Childhood

From 1965 to the present, theorists and researchers in early childhood such as Kohlberg (1968), Langer (1969), Lerner (1976), Lohman (1989), Garcia (1986) and DeAvila and Duncan (1979) view the young child from various human development frameworks. Two of these major theoretical frameworks or world views are cognitive-developmental (or organismic) and maturational/linguistic (or socialization). Related to the latter "world view" is contemporary sociolinguistics. Briefly, the cognitive-developmental model sees the young child's learning as a product of reciprocal interactions between self and environment. The maturational/linguistic mainstream views the child's development and learning as a series of emerging, predetermined, overlapping abilities and/or traits.

Peters, et al. (1985) sketch a set of assumptions for implementation and use of the world views underlying the field of early childhood:

1. Direct relationships exist between early childhood world views, research studies and classroom practices; sound practices are derived from theories and research.

2. These world views or models as foundations for programs and teaching practices are more effective and provide sounder, more valid outcomes for children's development and learning and are more cost effective than practices and programs built on teacher intuition, experience (which takes years to develop) or opinions.

3. Given the extensive theoretical and research bases of these world views of development, each of these models produces reliable and valid outcomes; no one model is a total prescription for a child's learning, classroom programs or teacher practices but instead they are approximations or blue prints to guide learning, programs and practices. Here continued research and refinement of theory feedback further refine classroom programs and practices.

4. Rather than being a single road to educating the young child, the world views or models approach "assumes there may be some models that suit some children better than others" (p. 41). Thus, the best match between young child and program is theoretically and practically possible.

5. Each world view can be validated empirically. In fact, Peters, et al. (p. 41) state that "experimental comparisons across theoretically derived models (and across theories) not only are called for but are considered essential".

6. Finally, a models approach is beneficial for the young bilingual child because it does not support any particular native language or sociocultural milieu (DeAvila & Duncan, 1979). Gunderson (1982, p. 204) notes that with the world views, "the potential advancement of bilingual children should manifest itself in superior performance on general ability tasks such as intelligence...!" The next section provides a description of each theoretical world view and selected research studies.

Cognitive-Developmental

The cognitive-developmental world view of the young child was originally developed by Dr. Jean Piaget. Piaget (1950, 1954, 1973) developed and researched several assumptions about the nature of children's learning and the development of human thinking. Postulating that development and learning evolve through reciprocal interactions between the individual and the environment, Piaget and Inhelder (1971) focused their efforts on emerging thinking or the development of operational, social intelligence.

Through organismic concepts such as "action-orientation for intellectual growth," "internal mechanisms of assimilation and accommodation," "variability of development between children" "invariability of stages for the growth of thinking," Piaget painted an interactive mosaic necessary for cognitive and language growth of the young child. Although substantive and detailed narratives of cognitive-developmental theory and studies appear elsewhere (as examples, see Sigel and Cocking, 1977; Furth, 1970; Forman and Kuchner, 1977), several concepts of cognitive interactionism are described to help the reader understand this world view and its relation to the young child's intellectual and language growth. These include components of the cognitive interactionist model, factors that contribute to intellectual growth, and developmental stages.

First, the components are structure, function, and content. Cognitive structures are mental concepts (i.e., schemata) that grow and evolve through function. How the young child develops structures, their richness and variability depend on his/her interaction with physical and social environments. Thus, structures are not inherited but inferred from young childrens' cognitive and language behaviors and actions. Because of the necessary interplay between the child and her/his environment, structural concepts develop with age and enable the young child to understand more meaningfully, for example, number, classification, and languages. Functions, unlike structural concepts, are constant, stable, continual and invariant characteristics in all

thinking individuals. For Piaget, his associates and other cognitive interactionists, function is the essence of intelligence or intelligence-in-action (Peters, et al. 1985). Examples of function include the conceptual movement of the child from egocentric to nonegocentric thinking and from lack of conservation to conservation abilities (i.e., understanding that amount or quantity of matter remains the same regardless of changes in its position or shape). Content describes the actions that children make on the environment (i.e., what they do and what they say.) These observable behaviors reflect intellectual activity. For example, whether or not children can show or explain that two equal balls of playdough remain the same even though they flattened one of the balls tells whether or not function can be inferred (i.e., conservation of mass). Through observation, content mirrors intellectual activity through structure. Because of the interrelated nature of the interaction among these components and the role of function, cognitive developmentalists view thought and language in the young child as separate systems. When the young child develops forms of concrete operational thinking, language and thought become inseparable and support one another. More detailed description of the roles of thought and language follows (see the explanations of the intellectual factor of "direct experience with the social world").

Another understanding of the cognitive-interactionist world view concerns the four factors that contribute to intellectual development in young children: maturation, equilibration, and direct experiences with physical and social environments. These factors, according to Piaget, influence cognitive development and provide further definition of structure, function and content components.

The first factor, maturation, is biological-based and provides the foundations for intellectual and language development to proceed in an evolving fashion. Specifically, maturation refers to the growth of brain tissue, endocrine, and neurological systems and other organ operations which serve individually and as a unit to "refine capacities for cognitive development" (Peters, et al., p. 228). As these biological mechanisms develop, specialization and differentiation, maturation determines and defines parameters of possibilities and impossibilities for each child's cognitive and language growth (Inhelder & Piaget, 1958).

Equilibration, the second factor, occurs automatically. It relates to children's cognitive structures and the developmental experiences (Furth, 1960) they have in their physical and social environments, i.e., they realize something personally and individually meaningful for the first time such as relationships between distance, rate, and time, Einstein's $E = MC^2$, that some things float and others sink or that objects can be classified by two or more characteristics and so forth. Accordingly, equilibration is an active mental process used by children as they act on and react to their physical and social

environments. Through this process, they acquire new meaningful concepts. As children experience, question and solve meaningful problems of their interest and personal concern, equilibration occurs. In a sense, the young child's active thinking processes move to and away from equilibration. This is a constant conceptual movement from equilibrium (where thought structures are balanced) to disequilibrium (where cognitive discrepancies exist between mental structures and experiential encounters) and then to equilibrium and so forth. For example, a preschooler who understands that all objects float (i.e., equilibrium) and then experiences some that do not float creates disequilibration or mental imbalance. Equilibrium as a mental structure is restored as children receive greater, richer experiences. For example, as objects are placed in water, they understand that some things float while others sink. Equilibration, according to cognitive interactionists (e.g., Furth, 1960) produces an inevitable progression from lower to higher order thinking.

The third factor, direct experience with the physical environment, is also an influencer of cognitive and language growth. As young children move, see, grasp, touch and taste physical objects or perform other sensory and motor activities, they experience and act on these objects and activities. In turn, the children's mental structures become modified through these sensory and motor experiences to fit or mesh with new and existing concepts. This continual interplay between the child and her/his physical environment is a critical base for development of intellectual and language concepts. "Learning by doing" and "using physical objects and experiences in the service of learning" are common cognitive-interactionist understandings of adults working with young children.

As children's ages increase, they require fewer and fewer sensory and motor experiences to develop intellect. For example, the young child of three or four requires constant actions of pushing, touching, pulling and so forth in order to develop mental concepts. Here they use trial and error and then intention as they continue to increase and gain experiences. However, older children use increasing quantity and quality of symbolic experiences which also serve intellectual growth (Peters, et al., 1985). Although older children still engage in sensory and motor actions, they can symbolically represent and use one set of objects for another to problem solve situations (Sigel & Cocking, 1977). As Peters, et al. (1985, p. 230) state, "The children have internalized these familiar objects...their function...and...can mentally represent familiar objects, situations, and people...not present."

The final critical factor influencing cognitive and language development is direct experience with the social environment. This factor emphasizes the impacts of social and cultural factors on the growth of young children. Within the social and cultural milieu, the roles of institutions are of primary import. These institutions include the family, school, religious organizations

and the more informal cultural activities and experiences and significant others. These formal institutions and cultural activities transmit meaningful cultural and social understandings, attitudes, skills and values. In similar fashion, young children act on, react to, and develop their intellect and language through social experiences. Peters, et al. (p. 233) state that cultural and "social institutions provide additional opportunities to construct cognitive structures through interactions based on these social experiences."

Relatedly, Garcia (1986), Hakuta (1987) and Calderon and Cummins (1982) regard social and cultural contexts as keys to the acquisition of two languages in early childhood bilingual education. Hakuta (p. 1372), like Garcia, views bilingualism as individuals "having equal facility in both languages (balanced bilingualism)." Garcia (p. 97) identifies several social conditions necessary for the development of bilingualism in young children:

1. Children are able to comprehend and produce linguistic aspects of two languages.

2. Children are exposed "naturally" to the two systems of languages as they are used in the form of social interaction during early childhood. This condition requires a substantive bilingual environment. In many cases this exposure comes from within a nuclear and extended family network, but this need not be the case (visitors and extended visits to foreign countries are examples of alternative environments).

3. The simultaneous character of development must be apparent in both languages. This is contrasted with the case of a native speaker of one language who, after mastery of that language, begins on a course of second language acquisition.

Through actions and activities performed in social environments, the acquisition of bilingual capacities is nurtured and facilitated. In substantiation, Edelman (1969), in Garcia (1986, p. 98) examined various social settings of school, home, neighborhood and church and the effects of these contexts on word naming. The results suggest that the young children's Spanish and English vocabularies change in these environments. Garcia (p. 98) further states that "language is learned within a child's culture, and children coming from different cultures will use language in ways that reflect their different cultures."

Canale and Swain (1980), in Calderon and Cummins (1982, pp. 27-28) emphasize the development of bilingualism through two social content approaches:

1. communicative or functional/notion approach — based on communicative functions (i.e., apologizing, describing, inviting, promising), and

2. situational approach — focusing on particular settings or situations (i.e., situational dialogues).

From cognitive interactionist perspectives, language and communicative proficiencies for bilingualism evolve in young language minority children through social context.

Developmental stages are the final elements critical to and embedded within the cognitive interactionist world view. Consistent with the cognitive interactionist world view, stages are viewed as specific benchmarks or periods in the intellectual development of individuals from infancy, childhood, adolescence to maturity (Piaget, 1950, 1954., Flavell, 1963). The construct of stage implies that intellectual development is partitioned into and characterized by general, global attributes of cognition across the individual's life span. These global intellectual attributes and benchmarks are ordered into a successive series of levels by age range approximations: (birth to 2 years), preoperational (2/3 to 7/8 years), concrete operational (7/8 to 11/12 years) and formal operational thought (11/12 to 16 years and beyond) (Hunt, 1961).

Piaget and other cognitive interactionists (i.e., Flavell, 1963., Hunt, 1961., Wadsworth, 1974) identify specific cognitive characteristics that show development within each and attainment for the next successive stage. Since this paper focuses solely on the child's early years (birth to 7/8 years), the following paragraphs describe specific cognitive attributes for and within the sensorimotor and preoperational stages. For excellent detailed reviews of cognitive characteristics beyond the early childhood years and specifically for the concrete operational and formal operational stages, see Flavell (1963), Lerner (1976), Hunt (1961), or Wadsworth (1974).

Since intellectual development of the preschool, kindergarten and primary grade child evolves from and within qualitative conceptual yet discontinuous changes of cognitive concepts in infancy, cognitive interactionists view the sensorimotor stage with similar importance as the more advanced preoperational stage. Peters, et al., 1985 identify several major cognitive attributes within the sensorimotor stage. These include:

1. reflexive actions of sucking, grasping and crying;
2. intentional actions such as striking, pounding, pulling and banging objects;

3. discrimination abilities among familiar and then novel objects, people and situations;

4. movement of cognitive development from reflexive to more [representational] structures;

5. coordination of eye-eye, hand-mouth, eye-object, and others through trial and error, repetition, and then intention;

6. discovery of the body as objects that are independent of his or her own;

7. anticipation of movements of his or her body and objects for space, time and causality;

8. solution of novel problems by coordinating two or more previously learned action schemes;

9. coordination of action schemes to arrive at solutions to problems; and

10. from very simple to complex cognitive structures to represent objects mentally and generate, rather than arrive at, solutions through physical or active experimentation (p. 245).

Although the above cognitive characteristics are a selective listing, they represent, nevertheless, an impressive growth, refinement and expansion of concepts within a very short two-year period. These and other intellectual attributes that develop within the sensorimotor stage and other stages arise through the previously explained interactive concepts, the four factors contributing to intellectual growth and the components of structure, function and content.

Using the metaphor of practice play (i.e., repetition and pleasure derived from actions) at the sensorimotor level, Piaget (1962) provides interesting understandings and examples of these developing attributes using language and movement. Embedded within three levels of increasing development of simple, intermediate and complex, Piaget (1962) shows language and movement practice play actions evolving through the infant's exploration of the environment, repetition of his/her actions and her/his amusement or pleasure derived from actions. For example, in simple language and movement practice play, the infant models or produces utterances, words and physical actions through exploration which are in turn repeated many times. The infant performs these simple language (e.g., "ma", "mama", "Me eat") and movement patterns (e.g., banging rattle against wall, playing with toes) many times for the pleasure and fun derived from these repetitions.

At the intermediate level of language and movement practice play, the infant reproduces language and movement actions and through trial and error adds other utterances, words and movements that may or may not relate.

Examples of trial and error additions for intermediate language practice play might be "mama go" or "mama go spoon" and for intermediate movement practice play could be banging the rattle against the wall and on the table or rattle-against-wall, then-on-the table, then crashing to the floor. Words and physical actions are associated through trial and error and are repeated for fun and pleasure derived from these repetitions. However, the infant develops practices and masters these language and motor units and later is able to reproduce these same units with intention. Peters, et al., 1985 (p. 244) note that: "Through repeated attempts and much active practice, the infant retains the scheme [concept] that works best. Two or more schemes become coordinated and the scheme-of-the-goal is activated accordingly, and at the complex level of language and movement practice play the infant uses these utterances and movements with intention and to accomplish a goal." The uses of language and movement become meaningful and coherent to others and show the evolution of thinking processes.

With the development, expansion and movement from reflexive, sensorimotor to representational (i.e., "out-of-sight-is-not-out-of-mind") thinking, the infant invents "new means to solve problems...[and]... produces faster solutions... without physical experimentation" (Peter, et al., p. 245). With this development and at the end of the sensorimotor stage, the preoperational period commences.

Within the preoperational stage, thinking and language show greater operationality and become more flexible (Cartright & Peters,1982, p. 248). Here several major cognitive attributes illustrating this stage include egocentrism, nontransformation, centration and nonreversibility (Ginsburg and Opper, 1969. Flavell, 1963. Wadsworth, 1974). Like the evolving thought characteristics in the sensorimotor stage, cognitive interactionists, similarly, view each of these attributes of the preoperational stage along developmental continua. For example, the child in entering the preoperational stage shows egocentric, nontransformational, centered and nonreversible thought and in exiting it demonstrates nonegocentric, transformational, decentered and reversible thought.

In egocentric thinking, the young preoperational child is cognitively unable to step into the shoes of another and see other children's perspectives or points of view. The child sees his/her own point of view while others' are disregarded; contradictory ideas and information are incorrect. Because of egocentric thinking, the young child rarely debates or monitors her/his own thoughts. Near the end of the preoperational stage, the young child is able conceptually to see others' viewpoints. With each new emerging concept during and after the preoperational and other stages, cognitive processes move from egocentric to nonegocentric thought.

In nontransformational thinking the child views segments of related actions, activities, or events as isolated, individual, and separate (Wadsworth, 1947). The child shows great difficulty in conceptually putting together these related segments into one integrated event or action. Cognitive interactionists such as Wadsworth view this as transductive reasoning since beginning, middle, and ending segments of an event, although related, are viewed as separate, unitary ones. By seven or eight years of age, children are able to integrate successively related actions or activities as one action, event or activity.

Similar to nontransformational abilities, in centration children are acquiring thought processes to disregard superficial for salient characteristics of objects, actions and situations (Wadsworth, 1974). In this sense, and as they move through the preoperational stage, children's thinking moves to greater decentration. They are more able to conceptualize meaningfully related characteristics in their environments rather than being perceptually misled by irrelevant attributes.

Reversible cognitive thought occurs when children are able to think about situations and draw logical conclusions from beginning to end points and then reverse their thought processes to arrive at the beginning point. Cartright and Peters (1982, p. 482) refer to arriving at the beginning point as "thinking backwards." Preoperational children develop reversible thinking throughout this stage with materials, situations, and events with which they are experientially familiar.

There are currently available some research studies with young limited English proficient (LEP) children, which show the results of cognitive developmentally based bilingual school programs. These studies include the High Scope Project (Hohmann, Banet & Weikart, 1979) and Title VII's Academic Excellence Project P.I.A.G.E.T. (Promoting Intellectual Adaptation Given Experiential Transforming) (Nivette, 1991). For the High Scope Program, Hohmann, et al. (1979) report "average gains in IQs of 23.5 points for young children in the first year and 16.8 points in the second year" (p. 286). In cross-sectional research on the P.I.A.G.E.T. Program, Nivette's (1991) findings show that the P.I.A.G.E.T. group compared to a comparison group of young bilingual children yielded significantly higher receptive and expressive English language and reading readiness scores. These results are consistent across several years with different groups of bilingual children. In longitudinal research, Nivette (1991) reports two related findings: (a) "By the time they [P.I.A.G.E.T. children] reach grade four, they are achieving at the average NCE of 41. This score is above the LEP average of 30 NCEs reported in other research" (see reviews in Krashen, 1981) (Nivette, 1991), (b) Gains made by P.I.A.G.E.T. children in fourth grade, compared to national norm reference for LEP children, are sustained in the fifth and sixth grades (Nivette, 1991).

Hakuta (1987, p. 1372), in researching cognitive abilities of young bilingual children, finds "positive and statistically reliable results ...between nonverbal intelligence measures and the degree of bilingualism in the younger cohorts...!" Consistent with cognitive developmental theory, Hakuta (p. 1373), speculating on these results, suggests that young bilingual children may develop "early objectification of language ...[through)... the use of two languages." On nonverbal measures of cognitive capacities, Hakuta's results are significant particularly for the younger child who is developing cognitive thought structures.

From currently available research studies, the results appear to suggest that cognitive developmental programs for young bilingual children may be alternative, viable programs of interest to school districts and preschool agencies.

Maturational Linguistic

The maturational/linguistic world view of the young child with special foci on bilingualism is advocated by Saville-Troike (1973), McLaughlin (1978,1987) and Chaudron (1988). They indicate that language is acquired for utilitarian reasons. That is, the child begins to develop sounds and place those sounds in such an order until they may elicit a response from the parent or other significant adults. As the child matures, experimentation with sounds is continued until such time as the child feels that the environment is responding to him/her. The sounds are put together and bring about the development of a functional vocabulary. Saville-Troike (1973) points out that language is systematic, symbolic, a way of social interaction and that it has meaning. The child develops meaning when social interaction occurs with the significant others and then with the environment.

From traditional maturationist perspectives, there are three factors that should be considered in the process of language development in young children. First is the character of the input to the process of acquiring grammar. The second factor is the functions of the utterances made by the young child. The third factor is the nature of the context in which young children's talk takes place (Dore, 1979). Conversation becomes the primary process in the development of language for the young child.

Bruner (1978) suggests that early language development is a function of the psychological processes leading to the acquisition of the language. To be able to communicate the child must acquire a set of broad skills. These skills are perceptual, motor, conceptual, social and linguistic. The manipulation of this set of skills permits the young child to develop a model of conversational patterns.

Bloom (1970) discusses the development of early syntax. He suggests that the ambiguity of the surface form used by the speaker affects the process of language development. Bloom concludes that the analysis of semantic structure requires information about extralinguistic context. In addition to extra linguistic context, the other factor is the child's imitation of the speech patterns of the significant adult, usually the mother.

Chomsky (1965, 1977) discusses the nature of utterances in relation to discourse and social context. Two basic functions are discussed—first, how the form of utterances constrains the functions they perform and second, how the form of utterances constrains the list of utterances themselves. The point is that when young children speak to each other, they display successive turns when speaking. When children are interacting they accomplish the task of communicating by controlling their speech sequences. The development of a second language is similar; the young child will begin to learn the words that are necessary to communicate with significant others and subsequently with those persons in the social environment. Frequently, the learning of a second language occurs as a result of frequent uses of stimuli and oral symbols in response to those stimuli. As a result of these processes, the young child develops meaning from the oral communication, learns the values of the society around him/her and shares with others his/her perception of the world.

Five hypotheses are advanced in the literature which relate the young child with maturational/language growth (Krashen, 1985). The five hypothesis are the acquisition-learning hypothesis, monitor hypothesis, natural order hypothesis, input hypothesis and affective filter hypothesis.

In the acquisition-learning hypothesis, Krashen (1985) suggests that a person has distinct processes of developing competence in a second language. Acquisition is a process that operates in the subconscious and is similar to the development of a first language. Learning is a conscious process of developing a language because the young child realizes that particular aspects of the language that is learned are different from the first language. McLaughlin (1988) indicates that one of the problems is that learning a second language may not be acquisition. However, Krashen (1982) notes that there are three reasons for assuming that learning might not become acquisition. First, sometimes a person might know a second language but does not have a conscious knowledge of the rules. Second, learning may never become acquisition because a person might have consciously learned the rules but does not apply them. Third, the rules of a second language are not always known by the speaker.

For the monitor hypothesis, Krashen (1982) suggests that a child's learning a language serves as a monitor to the way he/she speaks. Learning is present when a change is necessary in the way the young and older children are speaking. Krashen does not believe that formal learning helps the young child

because it represses the monitor. Knowledge of rules will not help in the acquisition of language. The function of the rules is to help the young learner to sharpen existing language skills. There are "three conditions in which the monitor is used: time, focus on form, and knowledge of the rules" (Krashen, 1982). While older learners might initially acquire a language faster, the young child over time acquires a larger amount of language. Therefore, if one were to measure the ultimate attainment of the second language, activities that focus on experiencing the environment might provide a unique opportunity for the development of a second language by young learners.

The evidence in favor of Krashen's input hypothesis (1985) is that there is a silent period in which the learner listens until linguistic competence is developed. In addition, age is an important variable in second language acquisition. The older the learner, the more the linguistic transfer. However, if the intention of the teacher is to assist the young child to develop a second language over time, the preoccupation should be with providing as much vocabulary as possible to the child.

For the affective language filter hypothesis, Krashen (1985) suggests that affective factors play an important part in the language acquisition process. Language may not be produced by the young learner if there are external factors that affect the process of learning a second language. The affective filter hypothesis captures the relationship between affective variables and the process of second language acquisition.

McLaughlin (1987) presents several theories that relate to the maturational/linguistic framework: the interlanguage theory and the acculturation theory. These two theories attempt to explain two major sources in the continuum of second language acquisition. The interlanguage theory refers to the development of separate linguistic systems in which the young child attempts to produce the norms of the target language. A systematic interlanguage was found in young children. Selinker, Swain and Dumas (1975), as quoted by McLaughlin, report that under certain circumstances, when the second language was acquired after the first language and when it occurs in the absence of native speaking peers of the target language, an interlanguage will develop in the speech of children. The interlanguage is defined as an intermediate grammar that is a single system composed of rules that have been developed via different cognitive strategies.

Acculturation theory refers to the study of second language acquisition without any formal instruction. The framework for this theory is developed by several researchers (Labov, 1966., Bicherton, 1973). Language is perceived by these researchers as evolving over time. The theorist's attempting to define the social-psychological factors that affect second language

development in young children have not as yet developed a coherent, tested theory.

Relatedly, Williams and Snipper (1990) have identified three types of literacy which the young child with a limited English proficiency needs to employ in order to adjust to the cultural milieu. These three types are functional, cultural and critical literacy. Functional literacy denotes ability to read and write well enough to understand designs, read newspaper headlines and make shopping lists (Williams & Snipper, p. 4). A young child in the process of developing a second language needs to develop a functional vocabulary. Many teachers are working under the assumption that the young child needs to learn academic, rule-governed language in order to function in the mainstream of society. The reality is that young children with limited English proficiency often have to negotiate their way through two languages and two cultures, the school and the home. This phenomenon requires that young children be allowed to develop functional literacy in both native and second languages. Cultural literacy refers to a broad range of behaviors associated with what is perceived as the socio-historic context of the content presented to the young child that is beginning to read (Williams and Snipper, p. 6). The young child is exposed to the new society and culture through reading. Frequently simple stories are formulated from the context of the new culture. While the young child might understand vocabulary, the concepts that are conveyed are not readily understood. The meaning of text is conditioned by the experiences, background and values of the young child. Critical literacy is the ability to recognize the social essence of literacy and its political nature (Williams and Snipper, p. 10). The texts to which young readers are exposed not only reflect the beliefs of the reader but also convey a political message. The nature of schooling is such that frequently children with limited English proficiency are exposed to stories depicting the values of language majority culture. The young child might not understand the underlying message because the child is not sensitized to the political changes which are occurring in the environment.

In sum, maturational/linguistic theories and studies frame the young child in an environment of evolving growth processes which set stages for learning. These processes have implications for school and classroom programs.

Implications of Theories and Research for Practitioners and School Administrators

Since 1965, theories and results of research studies and their implications for practice are characteristic of contemporary early childhood. In program planning, implementing and evaluating young children's growth, implications of these world views are evident in several contemporary early

education programs. For example, federal Project Head Start Program for three-to-five year-olds and its Planned Variation for six-to-eight year old children (in the primary grades) use implications of world views of human development for program applications. Head Start and Planned Variations have implemented both cognitive developmental and maturational world views (Evans, 1975). In addition, these federal programs have successfully implemented the mechanistic world view (which sees children's learning as an environmental product) (Cartright and Peters, 1982, p. 478) and/or a mix of several world views. The mechanistic framework, in general, sees young monolingual and bilingual children from low economic strata as "at risk" and "at deficit" using a middle class criterion. It focuses largely on grammatical or linguistic form (i.e., syntactic, phonological, morphological patterns and lexical items) (Calderon and Cummins, 1982). The contemporary programmatic utility of the mechanistic framework with these children is being questioned and debated (Lohman, 1989). Further, private schools have used the Montessorian/maturational world view quite successfully with young and older children in the United States (e.g., Montessori, 1966). Finally, other federal programs have employed these perspectives with young bilingual children in qualitatively varying degrees — e.g., Title VII's Academic Excellence, Special Populations and Transitional Programs. Accordingly, the world views framework and the respective research studies underlying these perspectives are ideal in for practitioners and school administrators identifying implications and applications with young LEP children. In the following section, several major implications and applications are identified and described. We begin with cognitive developmental and then discuss maturational/linguistic implications.

Cognitive Development Implications

The initial studies of Piaget (1954, 1962, 1974), his associates (Inhelder & Piaget, 1958) and follow-up and extended research by Flavell (1963), Furth (1960), Furth and Wachs (1975) and Lohman (1989) have several implications in school settings for curriculum programming, teaching and selecting learning materials for young LEP children.

Curriculum Programming

From concepts such as factors contributing to intellectual development, model components and cognitive characteristics of the young preoperational child, the major implications include integration and design of curricula for classroom programs.

Given the theoretical and research press of cognitive developmentalism for holistic growth, the young LEP child has active, evolving intellectual processes viewed within a mosaic embedded with language, socioemotional,

physical and representational elements. Research, therefore, implies a "best match" between the young LEP child and curricular programming. This best match maximizes the potential for thought and language development with ongoing curricular experiences. Here practitioners and school administrators plan for the whole child, evaluate to determine whether ongoing classroom activities meet individual children's needs and insure the best match between them. In planning and implementing, integration of curricula becomes paramount for developing first and second language and cognitive processes. For the young LEP child, curricular programming based on "themes" is most appropriate examples include transportation, family community, seasons, living things and so forth. Accordingly, curriculum programming as integration appears at several levels. At the first level, insuring that curricular programming and its classroom activities and experiences spin around identified themes is paramount. For example, the transportation theme might be planned around related subthemes: types and uses of transportation, building/making transportation vehicles, purposes of transportation and so forth. Appropriate classroom activities for each subtheme are planned and carried out; additional related ones are developed and implemented from what children do and say as they experience the initial ones. Integration, therefore, becomes topical themes related to subthemes and teacher planned and child initiated (i.e., adult unplanned) activities related to and integrated with these subthemes and themes. This integration, which is conducted in flowing, ongoing social context, maximizes first and second language growth and cognitive processes.

At another level, curriculum programming as integration implies "massed" experiences. Massed experiences prime the young LEP child for learning and developing cognitive/language processes and generalizing a concept across many activities and situations. Massed experiences are repeated experiences with the same concept from various perspectives across themes or subject areas. Using the theme of transportation and its subtheme, types of transportation, for example, the initial activity may be simply using familiar miniature replicas of transportation toys (e.g., car, trailer truck, bus, horse, spaceship) and naming them. After this initial activity, integration might proceed by identifying the colors of the transportation (i.e., reading readiness), then classifying the items by color (i.e., mathematics) and drawing them (i.e., art). Additionally, the children might do finger play or other games associating language with physical actions representing each of the transportation types (i.e., physical movement). The children might also talk about the sounds that each makes, similarities and differences between the sounds and the social functions that each transportation type performs for individuals (i.e., science). Finally, the children might develop safety rules for using each of the transportation vehicles and employ the safety rules and vehicles as a basis for dramatic play (i.e., social studies and health). Through massed experiences spread over several weeks, the children develop and expand their concept of types of transportation from many perspectives: naming/labeling, identifying colors,

classifying and drawing them, representing the actions and movements of the transportation types and dramatizing rules for safe use of transportation. All of these integrated activities focus on a concept and, from diverse perspectives, anchor it conceptually and meaningfully in social and whole language contexts rather than in rote, isolated fashion. Massed experiences, as integration, facilitate language and cognitive processing of native and English languages of young children (see related research reviews by Lane and Bergen, 1988., Stahl and Miller, 1989).

In addition to integration, another implication for curriculum programming is design of curricula in the classroom program. Cognitive developmental programs for young LEP children (e.g., High Scope, Title VII Project P.I.A.G.E.T.) usually employ a curricular format or design that includes developmental knowledge areas: physical, logicomathematical, social and representational knowledge (see Furth, 1960., Furth & Wachs, 1975., Peters, et al., 1985., for detailed explanations of these knowledge areas). Briefly, physical knowledge is feedback from objects in the children's environment (e.g., cold ice, sour lemon); logicomathematical knowledge is the children's mental development of relationships between objects (e.g., classifying, counting, seriating). Social knowledge is feedback from individuals (e.g., parents, teachers, significant others, peers). Representational knowledge is the children's structuring of the three knowledge areas representing their understanding (e.g., building a garage from blocks to represent a service station). From Peters, et al. (1985), other examples are:

1. mixing paints to make the color purple (physical knowledge);

2. finding and matching purple objects in the environment (logicomathematical);

3. identifying feelings associates with the color purple (social); and

4. putting on a purple robe used by a favorite king or queen and enacting a fantasy story about that favorite character (representational).

Knowledge areas are the experiential threads of integration for experiences and activities and become the cornerstones for curricular formatting and design. In application, schools and classrooms for young children might designate large time blocks as social knowledge (e.g., language activity time), logicomathematical (e.g., number activity time) and so forth. Then, too, classroom programs may show curricular formatting as large time blocks of free and guided play periods with the knowledge areas linking the various integrated activities with the knowledge areas within and across these periods. Finally, cognitively oriented curricula might consist of various subject matter time blocks (e.g., mathematics, reading) within which are the knowledge areas or

activities representing the knowledge areas. Regardless of their applied uses, knowledge areas are critical implications in the curricular design of cognitive developmental programs at school and classroom levels.

Teaching

Cognitive developmental theory and research provide several implications for teaching young children: discovery teaching, concrete objects and interaction. Within a cognitive developmental approach, cognitive/language concepts develop and evolve with the child's attempts at problem solving through meaningful experiences, activities and understandings. For application, problem solving in young child and classroom settings implies the teacher's use of discovery methods of teaching. These forms include free, prompted and discovery. For free discovery, the teacher permits children to choose materials and activities that they want to do. They follow their own self-needs and self-interests and provide their own direction. In prompted discovery, the teachers provide specific materials and activities for developing and expanding particular concepts in integrated fashion. In this prepared environment, children explore and manipulate, for example mixing colors and weighing blocks with a balance beam. Teachers may guide the children in their use of materials. In directed discovery, the teacher purposely guides the children to concentrate on particular aspects of materials, activities or situations. By using questions, entering the activity and coplaying or posing problems, the teacher guides and diagnoses for cognitive/language growth. Cognitive developmental theory also implies more structured teacher involvement; this is described in detail elsewhere (Sigel & Cocking, 1977).

Another implication is the nature of the learner. Cognitive developmentalists view the learning child as active, and implications follow about physical and mental activity. Physical actions such as rolling, pushing, pounding and other fine, gross and body movements are primary and used with objects. In turn, mental actions are constructed as the child uses physical actions on objects. Accordingly, experiences and activities provide opportunities for children to use physical actions and objects and to observe, probe, observe and question to develop mental concepts.

An additional implication for teaching young LEP children is the need for interaction between individuals to develop cognitive/language concepts. Interpersonal interactions are between adult and child and child and child. Adult-child interaction, in context, stresses respect, feelings of self-worth, and well being and supports children's decision making, problem solving, positive self-image and task completion. Peer-peer interaction in which children talk as they use objects and in which they dramatize people, objects and situations, contributes to reducing egocentricism and centration and fosters cognitive/language concepts because (1) "it forces children to realize

that everyone does not see things in the same way as they do;" and (2) "it forces a reorganization of knowledge on the part of preschoolers so that they can communicate effectively with others." Asking questions, talking about discrepancies between believed and actual situations and experimenting and exploring to find solutions are part of peer-peer interactions in which thought and language concepts evolve and expand. Promoting peer-peer interaction is a critical implication in planning and implementing early education programs for young LEP children (Peters, et al., 1985).

Learning Materials

Major theoretical principles of direct experiences with physical and social environments, equilibration and results of research studies (Piaget, 1974, 1973, 1954) provide key implications of the selection and use of material with young LEP children. Consistent with these principles and results, cognitive developmentalists recognize four types or groupings of learning materials critical to facilitating the language and cognitive processes of the young LEP children (Yawkey and Trostle., 1982., Johnson, Christie, & Yawkey, 1987): instructional, real, toy and constructional. Each type provides feedback and, in a sense, "talks back" or "responds" to young LEPs as they use them.

Built by manufacturers to teach specific skills and concepts, instructional materials stress convergent learning and provide feedback that tells children they have mastered the concept or need more practice. Most often, the skills and concepts embedded within this type of material are from the three Rs of reading, 'riting and 'rithmetic and other subject areas of science, social studies, art and music (Yawkey and Trostle, 1982). Some examples of these materials include puzzles, dittos, computers, pegboards, stringing and nesting sets, templates, alphabet and number games. Several examples of skills are matching letters and numbers, developing part to whole relationships, recognizing shapes, animals and other objects, and distinguishing upper and lower case letters (Yawkey and Trostle, 1982).

Real learning materials are made for adult uses and serve particular needs. Some of them become useful, meaningful learning materials for children because of their interest in the adult world. Divergent learning opportunities and feedback allow young LEPs to explore these materials and use them as they choose. Several examples of these adult materials that readily, easily service language and cognitive processes include sand, cardboard boxes, adult clothing, water, food and clay media (Yawkey and Trostle, 1982). Learning arises from using and interacting with these materials.

Toy objects are the most numerous of children's materials and are found in classroom and home. Toy materials are child-sized miniature replicas of people, animals and objects and fall into several categories: housekeeping,

transportation and animal/people (Yawkey & Trostle, 1982). Housekeeping materials represent objects and situations in home settings and include dolls, doll accessories, tables, chairs, pots, pans and so forth. Transportation materials include trucks, cars, space vehicles, wagons, trains and others. Miniature animal/people materials represent soldiers, astronauts, TV characters, zoo, forest and farm animals and so forth.

Construction learning materials are manufactured for multiple uses and divergent responses. Similar to real objects, constructional items provide feedback through exploration and use and "do not have a specific purpose or function" (Yawkey & Trostle, 1982, p. 87). Several examples of constructional materials are parquetry and building blocks, legos, tinkertoys, video games, dominoes, prints, arts and crafts media.

From a cognitive-developmental world view, understanding the four types of learning materials and selecting representatives from each of these types for classroom use are paramount. Selection based on these types provides variability in classroom materials and maximizes opportunities for children's choices, decision making, and problem solving. In addition, varied selection supports integration and teaching practices, and these four types can be used with any of the forms of discovery and more directed teaching. Taken together, these four types provide children with high variability, novelty, and complexity — all of which are necessary for language and cognitive growth of young LEP children. For detailed examples of how these types of materials are used in discovery activities for young LEP children, see Trostle and Yawkey (1990).

In sum, the cognitive-developmental world view has potential for the development of young LEP children based on its theoretical bases, research studies and implication for practice.

Maturational/Linguistic Implications

The review of the research on language acquisition and second language learning presents three theories, the Monitor model, the Interlanguage theory, and the Acculturation theory, which are commonly used to explain the process in which young children with limited English proficiency acquire a second language. The Acculturation theory explains the relation between adjustment to the environment and the development of a second language in young children.

The Acculturation theory shifts from the mechanisms of learning a language to the analysis of the context in which the young learner develops a second language. Schumann (1978) brings forth the relationship between social psychological acculturation and the degree of success in the development of a second language. Labov (1966) views language as a dynamic process

whereby the learner changes, adds and subtracts words to her/his repertoire as adjustment to the new environment takes place. Labov refers to this phenomenon as the development of an interlanguage. The framework of the Acculturation theory is inductive in nature. The assumption that guides this theory is based on a body of knowledge about Creole languages. The processes under study involve modification in attitudes, knowledge and behavior (Linton, 1963). The modifications were seen to require elements of the young child's cultural background. In addition, it has been noticed that as the young child introjects portions of the new language and culture, there is a decrease in the native language and culture (Prewitt Diaz, 1987).

Prewitt Diaz (1990) suggests that the overall process of second language development demands that acculturation occur in the young child. The process of acculturation requires cultural and psychological adaptation. In effect, the young child needs to learn the appropriate linguistic habits to function within a language group. Acculturation has to take place in the young child prior to the development of the second language. Schumann (1978) indicates that second language acquisition is just one aspect of acculturation. The degree to which the young child acculturates to the target-language group, will control the degree to which the young child acquires the second language. Schumann indicates that second language development is determined by the degree of social and psychological proximity of the young child to the target-language culture. Schumann (1978) defines social and psychological distance between the young child and the target language. Social distance refers to the young child as a member of a social group that is in contact with the target-language group. The relationship between the two groups will determine the level of second language development. Schumann (1978) defines psychological distance as the result of affective factors that concern the young child as these factors relate to the target-language group. These factors may include culture shock, instrumental motivation and language shock. From this discussion the reader can infer that the more social and psychological distance that exists between the young child and the target-language group, the greater the difficulties in developing the second language. The converse is also true; the greater the level of acculturation, the faster the second language will be developed by the young child. Schumann (1978) indicates that the level of contact between the young learner and the target-language group will determine the degree and speed of acculturation and, thus, of second language development.

The Acculturation theory accounts for the time and amount of language development that the young learner will develop. Attitude toward the target language, motivation to learn and social proximity are considered important factors in the development of second language in young children (Giles and Byrne, 1982). The dynamic nature of the Acculturation theory has been used recently to explain the process of second language development in

young children. There is a need to explore further the relationship between acculturation and the motivation and attitude toward learning a second language.

While the work of Labov advances some preliminary findings, it is worth noting that some recent research has begun to support the Acculturation theory. From the perspective of comparative linguistic and bilingual transference, Herbert (1990) reports some interesting results from the Freemont (CA) Unified School District's Title VII, Academic Excellence Project SLICE (Systematic Linking and Integrating of Curricula for Excellence). Cross-sectional and longitudinal results suggest that this model of comparative linguistic and bilingual transference appears to enhance the young child's academic abilities in English reading, language, mathematics and related areas.

The discussion of Krashen (1982, 1985), McLaughlin (1988) and Williams and Snipper (1990) above suggests several implications for the teaching of a second language to a young child.

Curriculum Planning

The LEAs (local education agency) are encouraged to begin to provide programs for young learners that will foster the young learners' interest in learning the second language. Resources may be obtained from federal, state or local governments. Programs should involve parents when possible. The educational establishment is encouraged to look at the family as an educational unit. The meaning of the family as an educational unit is that the role of the teacher changes. The teacher becomes an instructional facilitator that will assist the family in the acculturation process. The classroom teacher is encouraged to develop a curriculum that will involve the young child with a limited English proficiency in activities that will enhance the exploration of the environment. The curriculum should be developed in such form that the child may explore a number of new parts of the environment. The focus of learning should be concept development irrespective of the language in which the concept is learned. English language development will be achieved as the student feels more comfortable with the new environment. The curriculum should provide for motivation and access to the new world in which the young child is becoming a part.

Staff development

The schools may want to assist teachers through staff development activities to learn the existing theories of second language development. In addition, the opportunity for material development should be provided so that the teacher is familiarized with specific activities that need to be emphasized

during the period of second language development. Teachers are encouraged to participate in staff development activities sponsored by the professional organization, by an IHE (institution of higher education) or the state education agency. The important point is that the teacher become aware of the changing needs of the population of the United States. The educational needs of the young learners should be focused. The teacher is also encouraged to become knowledgeable about the social psychological needs of young children. The teacher then may assist the young child to develop a positive attitude toward second language learning.

Materials Development

The development of local materials is encouraged. The materials should be based on the current theories of language development and must include the specific language groups represented by the student population. The level of cognitive development and social adjustment of the young child should be considered in the development of materials that will foster reading/writing skills. The third issue to consider is the context (level of literacy) in which materials are prepared.

The National Head Start Program has developed a wealth of materials that have been tested over time to be helpful in preparing young learners to enter the schools. Adaptation of such materials is encouraged at the local level to serve the educational needs of these children. The acculturation of young learners is of such importance that the development and use of materials in the native language and subsequent transfer to the second language encouraged. Materials should focus on language learning as part of the acculturation process of the young child. There are three perspectives (Saville-Troike, 1985) that must be integrated in materials that are developed for young children with limited English proficiency. The first perspective is that language is part of culture and thus part of a body of knowledge, attitudes and skills which is transferred from one generation to the next. Lastly, language is a primary medium through which other aspects of culture are transmitted.

ISSUES AND RECOMMENDATIONS FOR FURTHER RESEARCH

From early childhood theories, research studies and implications for practitioners and school administrators, there are a number of relevant issues and recommendations that arise for further research. Across cognitive-developmental and maturational/linguistic world views, major issues and recommendations are identified and explained with a focus on the young LEP child.

Research Issues

The major research issues are listed and explained below:

1. In order to maximize the potential of the young LEP child, there should be continuity between the early childhood bilingual program and the child's home.

2. Process approaches appear successful in developing bilingualism in the young LEP child, but these approaches may not be as facilitative for this child beyond the preoperational level of cognitive and language development.

3. The program models based on the world views of child development should represent native languages and cultural customs of the LEP children enrolled in the program.

4. There may be other factors related to the cognitive/language growth of young LEP children that may be salient to bilingualism—e.g., classroom physical environment, learning styles, motivational patterns, self-concept (Garcia, 1986).

5. Building and facilitating certain types of bilingual competencies in young LEP children might be a basis for using specific kinds of instructional and evaluational programs.

6. Integrating various aspects of two or more developmental frameworks might facilitate and maximize the cognitive/language growth of the young LEP child.

7. Model teacher training programs should be developed that focus specifically on second language acquisition in the young child.

8. Research on second language development should continue. Specifically there is a need to understand the influence of the social/psychological development of the young child on the development of a second language.

9. The effects of migratory movements on the language development of young children should be explored further, and new instructional strategies should be implemented to address the specific learning needs of this population.

10. Local education strategies based on the theories discussed above should be explored in order to enhance the language and cognitive growth of the young child.

11. There is a need to develop valid and reliable instruments based on local curricula that measure the achievement of the young child in language development and reading in the target language. Individual observations should be performed on each child to determine the level of growth in and functional application of the second language.

12. Intervention strategies that are pertinent to each level of language development as proposed by Krashen (1982, 1985) should be developed and implemented locally to serve the diverse language groups.

Research Recommendations

Several research recommendations follow:

1. What are the short-range and longitudinal outcomes of the various developmental models on the young LEP child's bilingualism?

2. Within cognitive-developmental or maturational/linguistic programs, how do processes of expressive and receptive languages complement each other?

3. How are the effects of bilingualism similar or different relative to the young LEP child's cognitive/language, motivational or academic growth?

4. How can the benefits and values of cultures be identified and examined so understanding of these values and benefits encourages and supports bilingualism?

5. What are the most effective methods for using bilingual parents to increase bilingualism in classroom programs with young children?

6. Which forms of discovery teaching best maximize bilingual development of young LEP children?

7. Should local schools integrate activities of second language development in all the subjects?

8. Should a career ladder be initiated to train aides, paraprofessionals and other support staff in the process of facilitating the second language development in the young child?

9. Should local institutions of higher education be involved in assisting the local schools in developing instructional methodologies, materials and assessment instruments that facilitate the process of acquiring the target language?

SUMMARY

The world views of cognitive-developmental and maturational/linguistic theories and supporting research studies form frameworks for viewing young children and for drawing implications which govern the work of practitioners and administrators work with young LEP children.

From cognitive-developmental points of view and research perspectives, primary impact is given to critical components (e.g., structure), factors facilitating intellectual/language capacities (e.g., direct experience with the social environment) and stages underlying developmental benchmark characteristics (e.g., preoperational stage). For these critical components, factors and stages applied cognitive-developmentalist have specific implications for curricular programming and teaching the young LEP child. Issues for further study include researching continuity parameters to maximize the best match between bilingual program and the young LEP child's home environment with its "hidden/implicit curricula." Recommendations for further research, for example, suggest empirically examining short-term and longitudinal impacts of the cognitive-developmental perspectives on the young LEP child's cognitive/language structures and contrasting these impacts across different world views.

The maturational/linguistic perspective presents several theories. These theories set the basic groundwork for development of programs in the local schools. Implications are provided in areas such as the development of curricula, instructional materials and teacher training. The issues for further study include staff development and the formulation of curricula which are congruent with the young child's level of development in the second language. The section suggests that further consideration should be given to studies of the effects of sociopsychological factors in the acquisition of a second language.

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